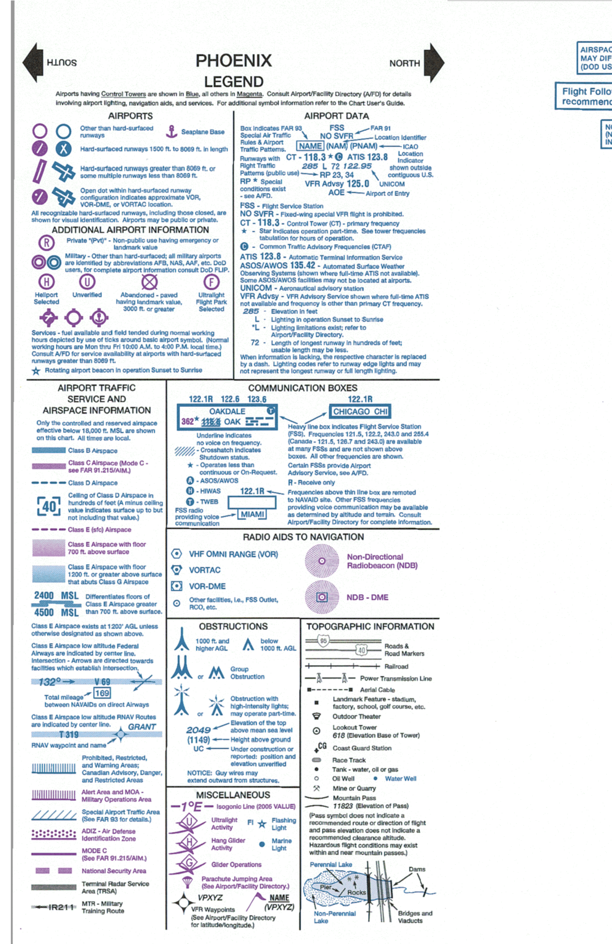


PHOENIX
SECTIONAL AERONAUTICAL CHART
SCALE 1:500,000

Lambert Conformal Conic Projection Standard Parallels 33°20' and 38°40'
Horizontal Datum: North American Datum of 1983 (World Geodetic System 1984)

83RD EDITION EFFECTIVE 0901Z 6 MAY 2010
TO 0901Z 21 OCT 2010

Includes airspace amendments effective 8 APR 2010
and all other aeronautical data received by 11 MAR 2010

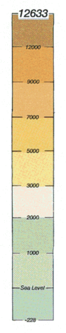
Information on this chart will change; consolidated updates of chart changes are available every 56 days in the AIRPORT/FACILITY DIRECTORY Chart Bulletin section (online at http://aeronav.faa.gov). Also consult appropriate NOTICES TO AIRMEN (NOTAMs) and other FLIGHT INFORMATION PUBLICATIONS (FLIPs) for the latest changes.

PUBLISHED IN ACCORDANCE WITH INTERAGENCY AIR CARTOGRAPHIC COMMITTEE SPECIFICATIONS AND AGREEMENTS, APPROVED BY:
DEPARTMENT OF DEFENSE • FEDERAL AVIATION ADMINISTRATION

CONTOUR INTERVAL 500 feet
Intermediate contour 250 feet
Auxiliary contours 100 foot intervals

HIGHEST TERRAIN elevation is 12633 feet
located at 35°21'N — 111°41'W

Spot elevation 4254
Approximate elevation 3200
Doubtful locations are indicated by omission of the point locator (dot or "x")



MILITARY TRAINING ROUTES (MTRs)

All IR and VR MTRs are shown, and may extend from the surface upwards. Only the route centerline, direction of flight along the route and the route designator are depicted - route widths and altitudes are not shown.

Since these routes are subject to change every 56 days, and the charts are reissued every 6 months, you are cautioned and advised to contact the nearest FSS for route dimensions and current status for those routes affecting your flight.

Routes with a change in the alignment of the charted route centerline will be indicated in the Aeronautical Chart Bulletin of the Airport/Facility Directory.

DoD users refer to Area Planning AP/1B Military Training Routes North and South America for current routes.

Published by the U.S. Department of Transportation
Federal Aviation Administration
National Aeronautical Navigation Services
http://aeronav.faa.gov

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NSN 7641014100154
NGA REF. NO. SECXXPHOENIX
EFF. DATE 10126

NORTH AMERICAN AEROSPACE DEFENSE COMMAND (NORAD) PROCEDURES

All aircraft operating in the U.S. national airspace, if capable, will maintain a listening watch on guard frequencies VHF 121.5 or UHF 243.0. It is incumbent upon all aviators to know and understand their responsibilities if intercepted. Review "AIM" section 5-6-2 for intercept procedures. Additionally, if U.S. military fighter jets intercept an aircraft and flares are dispensed in the area of that aircraft, aviators will pay strict attention, contact air traffic control immediately on the local frequency or on VHF guard 121.5 or UHF 243.0 and follow the interceptor visual ICAO signals. Be advised that non-compliance may result in the use of force.

REGULATIONS REGARDING FLIGHTS OVER CHARTED NATIONAL PARK SERVICE AREAS, U.S. FISH AND WILDLIFE SERVICE AREAS, AND U.S. FOREST SERVICE AREAS

The landing of aircraft is prohibited on lands or waters administered by the National Park Service, U.S. Fish and Wildlife Service or U.S. Forest Service without authorization from the respective agency. Exceptions include: 1) when forced to land due to an emergency beyond the control of the operator, 2) at officially designated landing sites, or 3) on approved official business of the Federal Government.

All aircraft are requested to maintain a minimum altitude of 2,000 feet above the surface of the following: National Parks, Monuments, Seashores, Lakeshores, Recreation Areas and Scenic Riverways administered by the National Park Service, National Wildlife Refuges, Big Game Refuges, Game Ranges and Wildlife Ranges administered by the U.S. Fish and Wildlife Service, and Wilderness and Primitive areas administered by the U.S. Forest Service. FAA Advisory Circular (AC) 91-36, "Visual Flight Rules (VFR) Flight Near Noise-Sensitive Areas," defines the surface as: the highest terrain within 2,000 feet laterally of the route of flight, or the upper-most rim of a canyon or valley.

Federal regulations also prohibit airdrops by parachute or other means of persons, cargo, or objects from aircraft on lands administered by the three agencies without authorization from the respective agency. Exceptions include: 1) emergencies involving the safety of human life, or 2) threat of serious property loss.

Boundary of National Park Service areas, U.S. Fish and Wildlife Service areas, and U.S. Forest Service Wilderness and Primitive areas.

PLOTTING DIRECT ROUTE ON NORTH/SOUTH SIDE

There are approximately two minutes of latitude overlap between the north and south sides of each sectional/WAC chart. To plot a course line from one side to the other, use the match line method. Locate the pair of corresponding latitude tick marks, one pair on each side of the chart and follow the steps below.

STEP 1 - Draw a horizontal line (MATCH LINE) between each pair of corresponding latitude tick marks on each side of the chart just to the left or right of where your line crosses. (Figure 1)

STEP 2 - Decide which side of the chart has the departure or destination point closer to the edge of the chart. On that side, line up a blank piece of paper along the MATCH LINE (the paper should be completely on the chart, not extending beyond its edge).

STEP 3 - Slide the paper sideways left or right so that a side edge of the paper aligns with the departure or destination point (POINT A). Make a MARK A on the edge of the paper where it meets that point.

STEP 4 - Without moving the paper, on the same edge as MARK A, extend a short line on the chart from the corner of the paper where it meets the MATCH LINE out to the edge of the chart. Make that LINE B.

STEP 5 - Turn the chart over and transfer the end of LINE B to the other side, and extend it straight to the MATCH LINE. (Figure 2)

STEP 6 - Take the sheet of paper with MARK A on it and align the (top or bottom) edge of the paper with the MATCH LINE and side edge with LINE B with the bulk of the sheet extending off of the chart. Plot a line from MARK A to the departure or destination point (POINT B).

STEP 7 - Where your plot line crosses the MATCH LINE make a MARK C. Extend a line straight from that mark to the edge of the chart.

STEP 8 - Turn the chart back over and transfer MARK C to that side and extend it to the MATCH LINE. Plot a line from MARK C to the destination. (Figure 3)

Class G Airspace within the United States extends up to 14,500 feet MSL. At and above this altitude all airspace is within Class E Airspace, excluding the airspace less than 1500 feet above the terrain and certain special use airspace areas.

REPORTING CHART ERRORS

You are requested to inform us of chart errors and/or additions that come to your attention while using this chart. Telephone toll free at 1-800-626-3677, or email us at 9-AMC-Aerochart@faa.gov. Frequently asked questions (FAQs) are answered on our website at http://aeronav.faa.gov. See the FAQs prior to contact via toll free number or email. Where delineation of data is required such information should be depicted clearly and accurately on a current chart, a replacement copy will be returned.
Mail to: FAA, National Aeronautical Navigation Services, SSMC-4, Sta. #3424, 1305 East West Highway, Silver Spring, MD 20910-3281.

CAUTION: This chart is primarily designed for VFR navigational purposes and does not purport to indicate the presence of all power transmission and telecommunication lines, terrain or obstacles which may be encountered below reasonable and safe altitudes.

CONVERSION OF ELEVATIONS
FEET (Thousands) 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30
METERS (Thousands) 0 1 2 3 4 5 6 7 8 9

FOR PROCUREMENT CONTACT:
FAA, National Aeronautical Navigation Services
REDIS / Distribution Team
10201 Good Luck Road
Glenn Dale, MD 20769-9700
Online at http://aeronav.faa.gov
Email 9-AMC-Chartsales@faa.gov
Telephone 1-800-638-8972
Fax 301-436-6829
or any authorized FAA Chart Agent

CAUTION: Severe turbulence may occur over rugged terrain. See AIM

AIRSPACE CLASSIFICATION/OPERATIONAL REQUIREMENTS MAY DIFFER BETWEEN MEXICO AND UNITED STATES (DOD USERS, SEE DOD AREA PLANNING AP/1)

Flight Following Services are available on request and highly recommended in and around Class B, C, and TRSA areas.

NOTE: DOD USERS, REFER TO CURRENT DOD (NGA) FLIGHT INFORMATION PUBLICATIONS FOR INFORMATION OUTSIDE OF U.S. AIRSPACE

SPECIAL USE AIRSPACE ON PHOENIX SECTIONAL CHART

Unless otherwise noted altitudes are MSL and in feet. Time is local.
"TO" an altitude means "To and including."
FL - Flight Level
NO A/G - No air to ground communications.
Contact nearest FSS for information.

† Other times by NOTAM.
NOTAM - Use of this term in Restricted Areas indicates FAA and DoD NOTAM systems. Use of this term in all other Special Use areas indicates the DoD NOTAM system.

U.S. P-PROHIBITED, R-RESTRICTED, W-WARNING, A-ALERT, MOA-MILITARY OPERATIONS AREA

NUMBER	ALTITUDE	TIME OF USE	CONTROLLING AGENCY/ CONTACT FACILITY	FREQUENCIES
R-2301E	TO FL 800	0630-2400†	ALBUQUERQUE CNTR	
R-2301W	TO FL 800	CONTINUOUS	YUMA RANGE CON	124.15
R-2302	TO 10,000	0800-2400 MON-SAT	ALBUQUERQUE CNTR	
R-2303A	TO 15,000	0700-1700 MON-FRI †24 HRS IN ADVN	ALBUQUERQUE CNTR	
R-2303B	8000 TO FL 300	0700-1700 MON-FRI †24 HRS IN ADVN	ALBUQUERQUE CNTR	
R-2303C	15,000 TO FL 300	INTERMITTENT BY NOTAM 24 HRS IN ADVN	ALBUQUERQUE CNTR	
R-2304	TO FL 240	0630-2400 MON-SAT†	ALBUQUERQUE CNTR	
R-2305	TO FL 240	0630-2400 MON-SAT†	ALBUQUERQUE CNTR	
R-2306A	TO 80,000	CONTINUOUS	YUMA RANGE CON	124.15
R-2306B	TO 80,000	CONTINUOUS	YUMA RANGE CON	124.15
R-2306C	TO 40,000	0600-2200†	YUMA RANGE CON	124.15
R-2306D	TO FL 230	CONTINUOUS	YUMA RANGE CON	124.15
R-2306E	TO 80,000	CONTINUOUS	YUMA RANGE CON	124.15
R-2307	UNLIMITED	CONTINUOUS	YUMA RANGE CON	124.15
R-2308A	1500 AGL TO 80,000	CONTINUOUS	YUMA RANGE CON	124.15
R-2308B	TO 80,000	CONTINUOUS	YUMA RANGE CON	124.15
R-2308C	1500 AGL TO FL 230	CONTINUOUS	LOS ANGELES CNTR	
R-2309	TO 15,000	CONTINUOUS	YUMA RANGE CON	124.15
R-2310A	TO 10,000	INTERMITTENT BY NOTAM 48 HRS IN ADVN	ALBUQUERQUE CNTR	
R-2310B	10,000 TO 17,000	INTERMITTENT BY NOTAM 48 HRS IN ADVN	ALBUQUERQUE CNTR	
R-2310C	17,000 TO 35,000	INTERMITTENT BY NOTAM 48 HRS IN ADVN	ALBUQUERQUE CNTR	
R-2311	TO 3500	SR-SS MON-SAT†	YUMA MCAS APP	
R-2312	TO BUT NOT INCL 15,000	CONTINUOUS	ALBUQUERQUE CNTR	
R-2501E	UNLIMITED	CONTINUOUS	LOS ANGELES CNTR	128.15
R-2501N	UNLIMITED	CONTINUOUS	LOS ANGELES CNTR	126.35
R-2501S	UNLIMITED	CONTINUOUS	LOS ANGELES CNTR	
R-2507E	TO FL 400	0700-2300†	LOS ANGELES CNTR	
R-2507N	TO FL 400	CONTINUOUS	YUMA RANGE CON	124.15
R-2507S	TO FL 400	CONTINUOUS	YUMA RANGE CON	124.15
R-2510A	TO 15,000	0700-2300 †24 HRS IN ADVN	LOS ANGELES CNTR	128.6
R-2510B	15,000 TO FL 400	0700-2300 SAT-SUN WHEN ACTIVATED BY NOTAMS 24 HRS IN ADVN	LOS ANGELES CNTR	128.6
R-2512	TO 23,000	0600-2300 †24 HRS IN ADVN	YUMA RANGE CON	124.15
A-231	500 AGL TO 6500	CONTINUOUS	NO A/G	

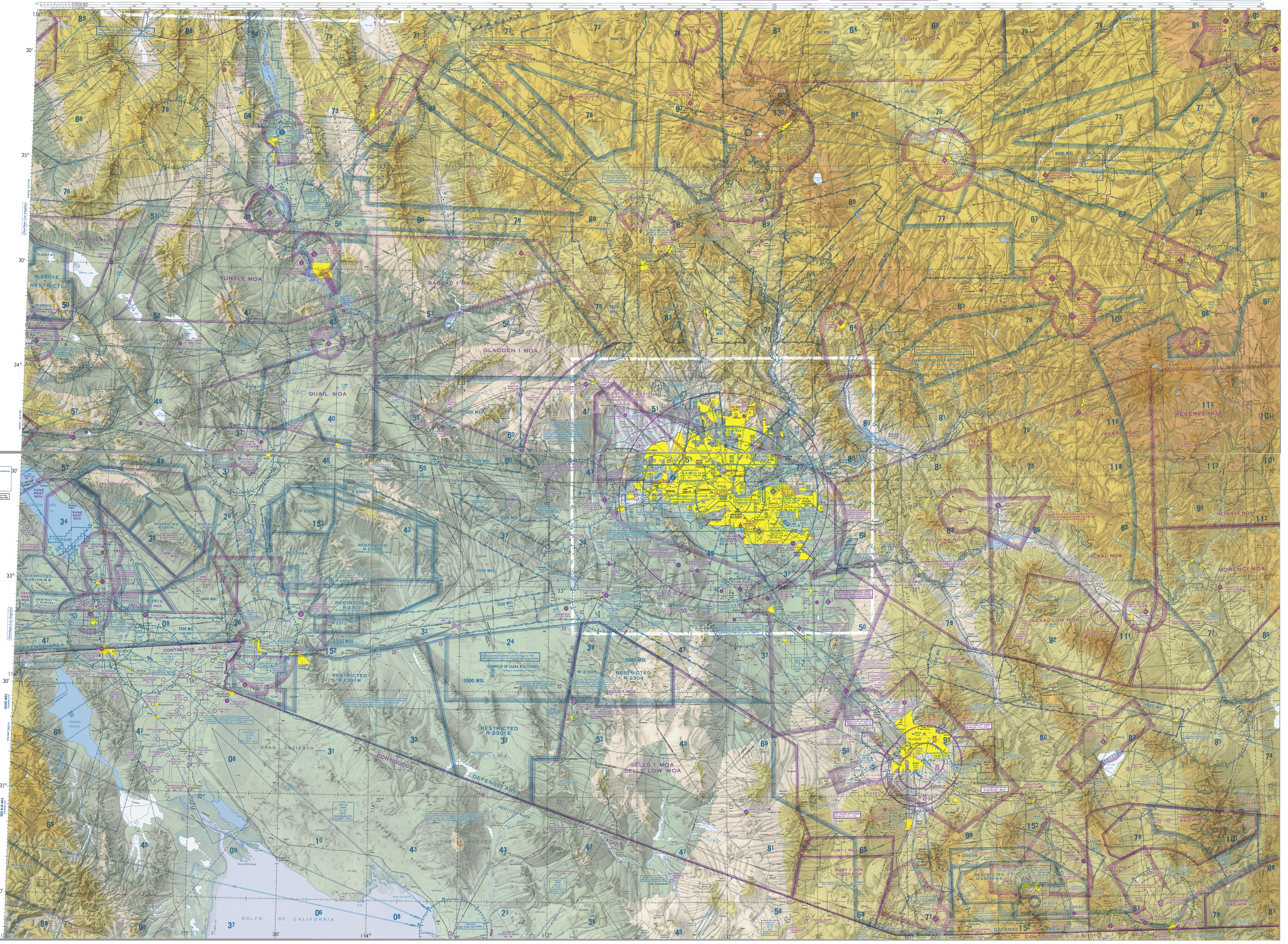
MEXICO P-PROHIBITED, R-RESTRICTED

NUMBER	LOCATION	ALTITUDE	TIME OF USE	CONTROLLING AGENCY
MMR413		TO 9000	BY NOTAM	DGAC SENEAM

MOA NAME	ALTITUDE*	TIME OF USE†	CONTROLLING AGENCY/ CONTACT FACILITY	FREQUENCIES
ABEL BRAVO	7000	0500-2200 MON-FRI	YUMA RANGE CON	124.15
ABEL EAST	5000 TO BUT NOT INCL 13,000	INTERMITTENT BY NOTAM	YUMA RANGE CON	124.15
ABEL NORTH, SOUTH	7000	0500-2200 MON-FRI	YUMA RANGE CON	124.15
BAGDAD 1	7000 OR 5000 AGL WHICHEVER IS HIGHER	0600-1900 MON-FRI	ALBUQUERQUE CNTR	
BRISTOL	5000	0700-1500 MON-FRI	LOS ANGELES CNTR	128.15 (S) 134.65 (N)
DOME	6000	INTERMITTENT BY NOTAM	YUMA RANGE CON	124.15
FUZZY	100 AGL TO BUT NOT INCL 10,000	0700-1900	ALBUQUERQUE CNTR	125.4
GLADDEN 1	7000 OR 5000 AGL WHICHEVER IS HIGHER	0600-1900 MON-FRI	ALBUQUERQUE CNTR	128.45
JACKAL	11,000 OR 3000 AGL WHICHEVER IS HIGHER	0700-1800 MON-FRI 1800-2200 MON-FRI BY NOTAM INTERMITTENT SAT-SUN BY NOTAM	ALBUQUERQUE CNTR	
JACKAL LOW	100 AGL TO BUT NOT INCL 11,000 MSL OR 3000 AGL WHICHEVER IS HIGHER	0700-1800 MON-FRI 1800-2200 MON-FRI BY NOTAM INTERMITTENT SAT-SUN BY NOTAM	ALBUQUERQUE CNTR	134.45
KANE EAST, SOUTH, WEST	10,000	0500-2100	YUMA RANGE CON	124.15
MORENCI	1500 AGL	0600-2100 MON-FRI	ALBUQUERQUE CNTR	134.45
OUTLAW	8000 OR 3000 AGL WHICHEVER IS HIGHER	0700-1800 MON-FRI 1800-2200 MON-FRI BY NOTAM INTERMITTENT SAT-SUN BY NOTAM	ALBUQUERQUE CNTR	134.45
QUAIL	10,000	0700-1700 MST MON-FRI	LOS ANGELES CNTR	128.1
RESERVE	5000 AGL	BY NOTAM	ALBUQUERQUE CNTR	134.45
RUBY 1	10,000	0600-1900 MON-FRI	ALBUQUERQUE CNTR	125.4
SELLS 1	10,000	0600-1900 MON-FRI	ALBUQUERQUE CNTR	125.4
SELLS LOW	3000 AGL TO BUT NOT INCL 10,000	0600-1900 MON-FRI	ALBUQUERQUE CNTR	125.4
SHOSHONE	200 AGL	0600-2200 MON-FRI	LOS ANGELES CNTR	134.65
SILVER NORTH	200 AGL TO 9000	INTERMITTENT BY NOTAM	LOS ANGELES CNTR	134.65
SUNDANCE	500 AGL TO 10,000	INTERMITTENT BY NOTAM	LOS ANGELES CNTR	
SUNNY	12,000	BY NOTAM 24 HRS IN ADVN	ALBUQUERQUE CNTR	124.5 306.2
TOMBSTONE A, B	500 AGL TO BUT NOT INCL 14,500	0600-2100 MON-FRI	ALBUQUERQUE CNTR	134.45
TOMBSTONE C	14,500	0600-2100 MON-FRI	ALBUQUERQUE CNTR	
TURTLE	11,000	0600-1600 PST MON-FRI	LOS ANGELES CNTR	128.15

*Altitudes indicate floor of MOA. All MOAs extend to but do not include FL 180 unless otherwise indicated in tabulation or on chart.
† - Other times by DoD NOTAM.

ATTENTION
THIS CHART CONTAINS MAXIMUM ELEVATION FIGURES (MEF).
The Maximum Elevation Figures shown in quadrangles bounded by ticked lines of latitude and longitude are represented in THOUSANDS and HUNDREDS of feet above mean sea level. The MEF is based on information available concerning the highest known feature in each quadrangle, including terrain and obstructions (trees, towers, antennas, etc.).
Example: 12,500 feet 12⁵



CONTROL TOWER FREQUENCIES ON PHOENIX SECTIONAL CHART

Airports with control towers are indicated on the face of the chart by the letters CT followed by the primary VHF local control frequency (ies). Information for each tower is listed in the table below. Operational hours are local time. The primary VHF and UHF local control frequencies are listed. An asterisk (*) indicates the part-time tower frequency is remoted to a collocated full-time FSS for use as Airport Advisory Service (AAS) during hours the tower is closed. The primary VHF and UHF ground control frequencies are listed. Automatic Terminal Information Service (ATIS) frequencies shown on the face of the chart are primary arrival VHF/UHF frequencies. All ATIS frequencies are listed in the table below. ATIS operational hours may differ from tower operational hours.
ASR and/or PAR indicate Radar Instrument Approach available.
"MON-FRI" indicates Monday through Friday.

CONTROL TOWER	OPERATES	TWR FREQ	GND CON	ATIS	ASR/PAR
CHANDLER	0600-2100	126.1 (ARR N, W) 119.7 (DEP RWY 04L/22R) 133.1 (ARR S, E) 133.1 (DEP RWY 04R/22L)	124.4	128.325	
DAVIS MONTHAN AFB	CONTINUOUS	118.85 253.5	121.8 275.8	270.1	PAR
EL CENTRO NAF	0700-2300 MON-THU 0700-1800 FRI 0700-1500 SAT CLSD SUN & HOL	119.1 360.2	121.9 254.35	269.275	
FALCON	0600-2100	119.7 (ARR N, W) 119.7 (DEP RWY 04R/22L) 124.6 (ARR S, E) 124.6 (DEP RWY 04L/22L)	121.3	118.25	
FLAGSTAFF PULLIAM	0600-2100 1 APR-30 SEP 0700-1900 1 OCT-31 MAR	134.55 226.3	121.9	125.8	
GEN TABOADA INTL	0600-0100	118.2		127.6	
GILA BEND AF AUX	RNG PERIODS ONLY, CLSD HOL	127.75 257.65	233.7		
GLENDALE	0600-2100 MON-FRI 0700-1900 SAT-SUN	121.0	118.0	119.425	
LAUGHLIN/BULLHEAD INTL	0800-1800	123.9	118.25		
LOVE	0600-2200	125.3 257.9	121.7	127.2	
LUKE AFB	0630-2230 MON-THU 0630-1830 FRI CLSD SAT-SUN & HOL	119.1 379.9	133.175 335.8	134.925 269.9	
PHOENIX DEER VALLEY	0600-2100	118.4 (RWY 07R/25L) 120.2 (RWY 07L/25R)	121.8	126.5	
PHOENIX GOODYEAR	0600-2100	120.1 239.3	121.7	118.35	
PHOENIX-MESA GATEWAY	0600-2100	120.6 289.4 (W) 124.75 379.225 (E)	128.25 275.8	133.5 270.275	
PHOENIX SKY HARBOR INTL	CONTINUOUS	118.7 278.8 (RWY 08/26) 120.9 254.3 (RWY 07L/25R & 07R/25L)	119.75 (N) 132.55 (S) 269.2	127.575	
PICACHO STAGEFIELD (NG)	AS SKED BY AZ ARNG	126.2 397.3			
RYAN	0600-2000	125.8	118.2		
SCOTTSDALE	0600-2100	119.9	121.6	118.6	
SIERRA VISTA-LIBBY AAF	0700-2300 MON-FRI O/T CTC ALBUQUERQUE CNTR	124.95 284.75	121.7 268.7	134.75 265.7	ASR/PAR
TUCSON INTL	CONTINUOUS	118.3 257.8	124.4 348.6	123.8 279.65	
YUMA MCAS/YUMA INTL	0730-2230 CLSD HOL	119.3 382.8	121.9 315.7	118.8 273.2	ASR/PAR

CLASS B, CLASS C, TRSA AND SELECTED RADAR APPROACH CONTROL FREQUENCIES

FACILITY	FREQUENCIES	SERVICE AVAILABILITY
PHOENIX CLASS B	120.7 239.0 (319°-057° BELOW 7500') 119.2 281.45 (319°-057° 7500' AND ABOVE) 124.9 353.8 (058°-118° BELOW 10,500') 126.8 269.6 (058°-118° 10,500' AND ABOVE) 123.7 363.0 (119°-138° BELOW 7500') 124.1 256.9 (119°-138° 7500' TO 14,500') 126.8 269.6 (119°-138° ABOVE 14,500') 123.7 363.0 (139°-191° BELOW 8500') 123.7 363.0 (139°-191° 8500' AND ABOVE) 124.1 256.9 (192°-263° 7500' TO 12,500') 126.8 269.6 (192°-263° ABOVE 12,500')	CONTINUOUS
DAVIS MONTHAN AFB/TUCSON CLASS C	119.4 318.1 (RWY 11 TUCSON INTL, RWY 12 DAVIS MONTHAN AFB 286°-089°) 125.1 269.55 (RWY 11 TUCSON INTL, RWY 12 DAVIS MONTHAN AFB 090°-285°) 119.4 318.1 (RWY 29 TUCSON INTL, RWY 30 DAVIS MONTHAN AFB 066°-274°) 125.1 269.55 (RWY 29 TUCSON INTL, RWY 30 DAVIS MONTHAN AFB 275°-065°)	CONTINUOUS
LAGUNA AAF (YUMA PROVING GROUND) RADAR	124.7 378.8	CONTINUOUS
LUKE AFB RADAR	118.15 363.12 (N) 125.45 263.125 (S)	0630-2230 MON-THU 0630-1830 FRI CLSD SAT-SUN & HOL
SIERRA VISTA-LIBBY AAF RADAR	127.05 254.35 O/T 134.45 327.15 ALBUQUERQUE CNTR	0700-2300 MON-FRI
YUMA MCAS/YUMA INTL RADAR	124.7 374.8	CONTINUOUS

O/T indicates Other times

Features normally used as checkpoints for controlling VFR traffic are emphasized on this series of charts so they may be readily identified.
Example: POWER PLANT
The name shown is that used by the controlling personnel and is not necessarily the official name of the feature.